3. The data communication interface of claim 2, wherein said first and second digital signal processors reside on a common circuit card within said interface.

4. The data communication interface of claim 3, wherein said data-handling resource controller and said resource internal state memory also reside on said common circuit card.

5. The data communication interface of claim 2, wherein said first digital signal processor resides on a first circuit card within said interface, and wherein said second digital signal processor resides on a second circuit card within said interface and sharing a common bus with said first circuit card.

6. The data communication interface of claim 5, wherein said data-handling resource controller resides on a third circuit card within said interface.

7. The data communication interface of claim 6, wherein said resource internal state memory also resides on said third circuit card.

8. The data communication interface of claim 1, wherein said first data-handling resource comprises a first circuit card comprising multiple digital signal processors, and said second data-handling resource comprises a second circuit card comprising multiple digital signal processors.

9. The data communication interface of claim 8, wherein said first and second circuit cards each comprise a card internal state memory and save internal state information from their respective digital signal processors in their respective card internal state memories.

10. The data communication interface of claim 8, wherein said first data-handling resource can receive multiple simultaneous data connections, and wherein said second data-handling resource can receive a simultaneous transfer of all connections received by said first data-handling resource to said second data-handling resource.

11. The data communication interface of claim 8, wherein said first data-handling resource can receive multiple simultaneous data connections, and wherein said second data-handling resource can receive a transfer of selected connections received by said first data-handling resource to said second data-handling resource.

12. The data communication interface of claim 1, wherein said one or more conditions comprise a failure of said first resource.

13. The data communication interface of claim 1, wherein said one or more conditions comprise removal of said first data-handling resource.

14. A data communication interface comprising:

a data bus;

a resource internal state memory;

N+1 data-handling resources, wherein N > 1, each connected to said data bus, each connected to said resource internal state memory such that internal state information from the first N of said data-handling resources is savable in said resource internal state memory and is retrievable from said resource internal state memory by the N+1th said data-handling resource; and

a data-handling resource controller that responds to one or more conditions indicating that data from a first data connection should no longer be directed to any one of said N first data-handling resources, by directing said data from said first data connection to said N+1th data-handling resource without loss of connection.

15. The data communication interface of claim 14, wherein the N+1th data-handling resource is only assigned data from said first data connection in response to said conditions.

16. The data communication interface of claim 14, wherein internal state information from each of said N+1 data-handling resources is savable in said resource internal state memory and retrievable by more than one of said N+1 data-handling resources.

17. The data communication interface of claim 14, wherein each of said data-handling resources emulates at least one modem.

18. The data communication interface of claim 14, wherein each of said data-handling resources emulates at least one voice codec.

19. A data communication interface comprising:

a data bus;

a resource internal state memory;

N data-handling resources, wherein N > 1, each connected to said data bus, each connected to said resource internal state memory such that internal state information from each of said data-handling resources is savable in said resource internal state memory and is retrievable from said resource internal state memory by any other of said data-handling resources, wherein all N data-handling resources may receive data simultaneously; and

a data-handling resource controller that responds to one or more conditions indicating that data from a first data connection should no longer be directed to one of said N first data-handling resources, by directing said data from said first data connection to another of said N data-handling resources without loss of connection.

20. The data communication interface of claim 19, wherein said data-handling resource controller drops said first connection when all functional data-handling resources are busy at the time of occurrence of said one or more conditions.

21. The data communication interface of claim 19, wherein said data-handling resource controller responds to one or more conditions indicating that data from a first data connection should no longer be directed to any one of N first resources, by directing said data from said first data connection to any idle data-handling resource.

22. A multiple-modem subsystem, said subsystem comprising:

a data bus;

a resource internal state memory;

multiple modem resources each connected to said data bus and to said resource internal state memory such that internal state information from the modem resources is savable in said resource internal state memory and is retrievable from said resource internal state memory by other modem resources; and

a modem resource controller that responds to failure or removal of any one of said modem resources during an active modem connection by transferring said modem connection to another modem resource that retrieves the internal state information for the failed one of the modem resources.

23. The multiple-modem subsystem of claim 22, wherein each of said modem resources comprises a digital signal processor.

24. The multiple-modem subsystem of claim 22, wherein each of said modem resources comprises a circuit card.

25. A modem comprising:

an internal state configuration; and

an external state-saving subsystem that communicates the internal state configuration of said modem to a device external to said modem.

26. The modem of claim 25, further comprising an external state-loading subsystem that pre-configures the internal state configuration of said modem for a pre-existing data connection so that the pre-existing data connection can be transferred to said modem from another modem.

27. A modem comprising:

an internal state configuration; and

an external state-loading subsystem that pre-configures the internal state configuration of said modem for a pre-existing data connection so that the pre-existing data connection can be transferred to said modem from another modem.

28. A method of operating a data communication interface comprising multiple data-handling resources, said method comprising the steps of:

periodically saving internal state information from an active data-handling resource in a location separate from said data-handling resource;

monitoring said active data-handling resource for one or more conditions requiring removal of a data connection from said active data-handling resource; and

upon occurrence of a condition requiring removal of a data connection from an active data-handling resource, loading internal state information related to said data connection into a second data-handling resource having excess capacity sufficient to handle the data connection, and transferring the processing of said data connection to said second data-handling resource.

29. The method of claim 28, wherein said second data-handling resource comprises a redundant resource.

30. The method of claim 28, wherein said active data-handling resource can receive multiple simultaneous data connections, and wherein said transferring step comprises transferring the processing of each of said multiple data connections to said second data-handling resource.

31. The method of claim 28, wherein said active data-handling resource can receive multiple simultaneous data connections, and wherein said transferring step comprises distributing the processing of said multiple data connections to multiple data handling resources having excess capacity.